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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,270	04/30/2001	Andrew Joseph Travaly	839-1028	8943

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EXAMINER	
KOSOWSKI, ALEXANDER J	
ART UNIT	**PAPER NUMBER**
2125	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/844,270	TRAVALY ET AL.	
	Examiner	Art Unit	
	Alexander J. Kosowski	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *4/30/01, 11/10/05* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-22, as amended 10/11/06, are presented for examination.

Claim Objections

2. The claim objections from the previous office action are withdrawn in light of the amendment filed 10/11/06.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claims 1 and 10, the claims contain multiple instances of the conditional claim language "capable of", "may" and "may be" before claim limitations. It is not clear whether the limitations that follow are necessary, or what would happen if those limitations do not occur. Therefore, a question is raised as to the limiting effect of the language in the claims. See MPEP 2111.04.

Examiner notes, however, that for purposes of examination, the claimed limitations following this conditional claim language will be considered.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 10, 11, 16-19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrie et al (U.S. Pat 6,882,904), further in view of Ying (U.S. Pat 6,757,521).

Petrie et al discloses (claim 10) a field engineering communication network (figures 4-7), said network comprising a controller processor system at said power plant to control a gas turbine (col. 3 lines 31-36 and col. 5 lines 35-36 and reference number 107, 108, whereby a gas turbine is listed as a type of distributed generator to be controlled) and at least one wireless communications access point interface communicatively coupled to said controller processor system (col. 13 lines 1-9 and reference number 15, 17, to 310, figure 7), said interface communicating wirelessly with at least one of a mobile computing system and a wearable computer carried by a mobile user (col. 13 lines 1-9 and reference number 15, 17, figure 7), said controller processor system providing operational parameter data and receiving instructions from one of said mobile computing system and a wearable computer carried by a mobile user for performing on-site inspection, operation or control of a gas turbine (col. 10 line 65 – col. 11 line 34, col. 12 line 60 – col. 13 line 9, reference number 680a, figure 6 controls). However, Petrie does not explicitly teach that appropriate computer software applications, control data or instructions for the controlling the operation of the gas turbine may be provided to at least one of said mobile unit and a wearable computer via wireless communications from a remote server.

Ying teaches a field engineering communication network whereby wireless mobile units are utilized to monitor or control system components (col. 5 lines 8-55), and

whereby application programs may be downloaded over a local area network for use by the wireless mobile units (col. 11 lines 13-25 and col. 12 lines 45-67).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide appropriate computer software applications, control data or instructions to a mobile unit or wearable computer via wireless communications from a remote server in the invention taught by Petrie above since this would allow comprehensive diagnostic and maintenance information to be remotely accessed from a stored database (Ying, col. 11 lines 16-19), which examiner notes would allow a mobile device to obtain the most up-to-date data possible, rather than relying solely on previously stored data in the mobile device.

Referring to (claim 11), Petrie discloses a local area network (LAN) in communication with said at least one wireless access point interface (col. 12 lines 60-65), at least one terrestrial satellite communications antenna assembly having a transceiver system for transmitting and receiving signals from said at least one wireless communications access point interface (reference number 15, 17, inherent to a wireless device), and at least one network server computer system communicatively coupled to said at least one terrestrial satellite communications antenna assembly via a wireless communication network, said server including a database for storing application data accessible by the mobile user (figure 7 all devices connected by the network, col. 10 lines 48 – col. 11 line 35, col. 12 line 60 – col. 13 line 9),

Referring to (claim 16), Petrie teaches in a power plant of the type having a gas turbine (figures 5-7, col. 2 line 50, 63, col. 5 lines 35-38), a method comprising monitoring and collecting gas turbine operational parameter data by at least one processor

system (reference number 107, 108, col. 10 line 65 – col. 11 line 10), forwarding the received data to at least one of a mobile unit and a wearable computer carried by a mobile user via wireless communications (col. 12 line 60 – col. 13 line 9), inspecting the received data to assess gas turbine operability (col. 10 line 65 – col. 11 line 10), receiving application software and/or data for controlling the operation of the gas turbine (col. 12 lines 39-50) and instructing the processor system via wireless communication from at least one of said mobile unit and a wearable computer to vary the gas turbine operation in accordance with received application software or data (reference number 6, 7, col. 11 lines 36 – col. 13 line 9, reference number 680a, figure 6). However, Petrie does not explicitly teach receiving from a remote server via wireless communications, by at least one of said mobile unit and a wearable computer via a wireless network, application software and/or data.

Ying teaches a field engineering communication network whereby wireless mobile units are utilized to monitor or control system components (col. 5 lines 8-55), and whereby application programs may be downloaded over a local area network for use by the wireless mobile units (col. 11 lines 13-25 and col. 12 lines 45-67).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive from a remote server via wireless communications, by at least one of said mobile unit and a wearable computer via a wireless network, application software and/or data in the invention taught by Petrie above since this would allow comprehensive diagnostic and maintenance information to be remotely accessed from a stored database (Ying, col. 11 lines 16-19), which examiner notes would allow a mobile

device to obtain the most up-to-date data possible, rather than relying solely on previously stored data in the mobile device.

Referring to (claim 17), Petrie teaches forwarding power plant data to a remote user via a wireless communication network (col. 8 lines 53-57), (claims 18, 19, 21 and 22) are considered various combinations and variations of the claim limitations addressed above, also considered anticipated.

Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

6. Claims 1-9, 12-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrie et al in view of Ying, in view of Perkins et al (U.S. Pat 6,496,477).

Referring to (claims 1-9, 12-15 and 20), Petrie et al teaches most all of the instant invention as applied to claims 10, 11, 16-19, 21 and 22 above. Petrie et al also teaches a system for digitization of work processes in a power plant having a gas turbine (figures 5-7, col. 2 line 50, 63, col. 5 lines 35-38), at least one processor system having a controller (reference number 107, 108, col. 10 line 65 – col. 11 line 10), said at least one processor system receiving power plant data, and said controller controlling said gas turbine (col. 10 line 65 – col. 11 line 10), at least one wireless communications interface device communicatively coupled to said at least one processor system for wirelessly communicating the data received from the power plant by the processor system to at least one of a mobile computing system and a computer system carried by a mobile user

(figure 7, reference numbers 15, 17, col. 12 line 60 – col. 13 line 9), said controller capable of receiving instructions from at least one of said mobile computer system or said wireless computer system carried by a mobile user to control the gas turbine, wherein field service engineering work process include inspection, monitoring and controlling a power plant gas turbine may be performed using said mobile computer system or said wireless computer system carried by said mobile user (reference number 6, 7, col. 10 line 65 – col. 12 line 50, col. 12 line 60 – col. 13 line 9, reference number 680a, figure 6 controls), a local area network (LAN) in communication with said at least one wireless communications interface device (col. 12 line 60 through col. 13 line 9), at least one antenna assembly having a transceiver system for transmitting and receiving signals from said at least one wireless communications interface device (reference numbers 15, 17, inherent), and a network server computer system communicatively coupled to said at least one antenna assembly via a wide area communication network (reference number 310) said server computer system including a database for storing application data accessible by the mobile user wherein a mobile user roving on site at a power plant location remote from network server computer system may wirelessly communicate for performing service engineering work processes (col. 10 line 48 – col. 11 line 35, col. 12 line 60 – col. 13 line 9), (claim 2) wherein said at least one wireless communications interface device is a wireless access point device, and said wireless computer system carried by said mobile user is a wearable computer (reference number 15, 17, Examiner considers 15 and 17 as wireless access point devices and are wearable either though a belt clip, holder or placing in a pocket), (claim 3) wherein said access point device is capable of communicating the data received from the processor system to the server computer via

said LAN (figure 7) and (claim 9) wherein said wireless access point is capable of operating on DC power (inherent, mobile phones and PDAs operate on DC power).

However, Petrie does not explicitly teach wherein a mobile user may wirelessly communicate with both said gas turbine and said network server for performing service engineering work processes including uploading and / or downloading computer software applications for data for performing inspection, operation or control of one or more gas turbine processes, nor that the system and networks contain the following elements: a wireless hub router, a private branch exchange network (PBX), a voice over IP (VOIP) gateway, an ethernet interface, an ATM network and communicating data via a terrestrial orbiting satellite.

Ying teaches a field engineering communication network whereby wireless mobile units are utilized to monitor or control system components (col. 5 lines 8-55), and whereby application programs may be downloaded over a local area network for use by the wireless mobile units (col. 11 lines 13-25 and col. 12 lines 45-67).

Perkins teaches a network that contains each of the remaining elements above and is used for communicating with wearable communication and control devices (all).

Petrie and Ying and Perkins are all analogous art because they are all related to data transfer over network communications.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made for a mobile user to wirelessly communicate with both said gas turbine and said network server for performing service engineering work processes including uploading and / or downloading computer software applications for data for performing inspection, operation or control of one or more gas turbine processes in the

invention taught by Petrie above since this would allow comprehensive diagnostic and maintenance information to be remotely accessed from a stored database (Ying, col. 11 lines 16-19), which examiner notes would allow a mobile device to obtain the most up-to-date data possible, rather than relying solely on previously stored data in the mobile device.

Therefore, it would also have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the well known elements of the communication networks of Perkins et al in the communication and control network of Petrie et al because these elements are well known in the art of network communications and Perkins et al teaches the improved delivery of real-time information from a sender computer to a receiver computer coupled to the sender computer wherein packets sometimes become lost. Perkins teaches using at least one path in the packet network and at least one path-diversity path in the packet network to the same receiver computer (col. 2 lines 15-24), which improves packet delivery reliability.

Response to Arguments

7. Applicants arguments regarding the independent claims are rendered moot in light of the modified rejection above, necessitated by amendment.

Otherwise, referring to applicant's argument on page 11 of the remarks section of the response regarding the combination of Petrie and Perkins, applicant argues that "no teaching has been provided that suggests the obviousness of modifying...Petrie...as claimed". In response, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, a proper motivation for combining, namely to improve packet delivery reliability and because the elements are all well known, has been shown in the rejection above, and examiner thereby finds applicant's arguments not to be persuasive.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pyotsia et al (U.S. Pat 7,010,294) – teaches wireless control of a field device.

Kretschmann (U.S. Pat 6,167,464) – teaches a mobile interface for industrial control.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander J Kosowski whose telephone number is 571-272-3744. The examiner can normally be reached on Monday through Friday, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. In addition, the examiner's RightFAX number is 571-273-3744.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Alexander J. Kosowski
Primary Examiner
Art Unit 2125